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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/964,639	.09/28/2001	Dong-Gyu Kim	6192.0186.AA	1991

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McGuireWoods LLP
1750 Tysons Blvd
Suite 1800
McLean, VA 22102

EXAMINER

CHOWDHURY, TARIFUR RASHID

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 10/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/964,639

Applicant(s)

KIM, DONG-GYU

Examiner

Tarifur R Chowdhury

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AW

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-26 and 36-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-26 is/are allowed.
- 6) ☒ Claim(s) 36-40 is/are rejected.
- 7) ☒ Claim(s) 41 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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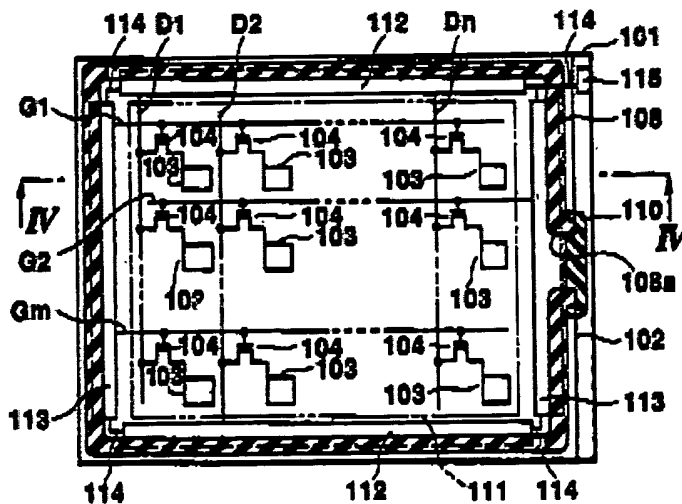
DETAILED ACTION***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 36-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawatsubashi et al., (Sawatsubashi), USPAT 5,148,301.

3. Sawatsubashi discloses and shows in Fig. 3, a display device, comprising:
- a first substrate having a plurality of gate lines (G1-Gm) and a plurality of
 - data lines (D1- Dn);



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- a plurality of thin film transistors (104) electrically connected to the gate lines and the data lines;
- a plurality of pixel electrodes (103) electrically connected to the thin film transistors respectively;
- a plurality of gate driving ICs (113) to output gate signals to the gate lines;
- a plurality of data driving ICs (112) to output data signals to the data lines;
- and
- a plurality of signal lines (114) (applicant's interconnection lines) apply gate control signals to at least one of the gate driving ICs (145) (col. 5, lines 1-16).

Sawatsubashi also discloses that his invention is related to a liquid crystal display device wherein the display device includes an upper substrate, a lower substrate, and an interposed liquid crystal therebetween (col. 2, lines 39-63).

Sawatsbashi differs from the instant invention because he does not explicitly disclose the claimed black matrix overlapping at least one of the interconnection lines.

It is common and known in the art to form black matrix on a substrate opposite to the substrate where the gate lines and the data lines are formed and outside the display area (interconnection lines are typically formed outside the display area) so that it overlaps the interconnection lines in order to prevent light leakage and thus improve display quality.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the display device of Sawatsbashi by forming

a black matrix such that it overlaps the interconnection lines so that light leakage is prevented and display quality is improved.

Accordingly, claim 36-38 would have been obvious.

As to claims 39 and 40, Sawatsbashi also shows in Fig. 5 and discloses (col. 5, lines 16-31) that the display device further comprising a driving signal transmission film wherein at least one of the data driving ICs is mounted on the driving signal transmission film and that the driving signal transmission film outputs the gate control signals and the data signals to the interconnection lines and the data lines respectively.

Allowable Subject Matter

4. Claims 14-26 are allowed.
5. Claim 41 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicant's arguments with respect to claims 36-41 have been considered but are moot in view of the new ground(s) of rejection.

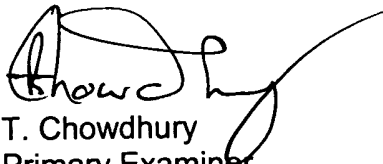
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tarifur R Chowdhury whose telephone number is (703) 308-4115. The examiner can normally be reached on M-Th (6:30-5:00) Friday Off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (703) 305-3492. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.



T. Chowdhury
Primary Examiner
Technology Center 2800

TRC
October 17, 2003